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(54) **Title:** TWO STAGE ENRICHMENT OF CELL-FREE FETAL DNA IN MATERNAL PLASMA

DNA levels following plasma DNase treatment. Plasma DNA levels are displayed as percent DNA remaining after DNase treatment (0 μ treatment set as point zero). Samples tested include plasma from confirmed female (panel A) and male (panel B) maternal cases which were subjected to 0, 1, 5, 10, 30 μ l of DNase (1 unit/ μ l). As controls, non-pregnant male and female plasma was subjected to 0, 1, 5, 10 μ l of DNase (1 unit/ μ l). Graphs represent dot blot with standard deviation (bars). RT-PCR was performed to measure levels of circulating β -Globin (Bglo) and DYS1 following DNase treatment.

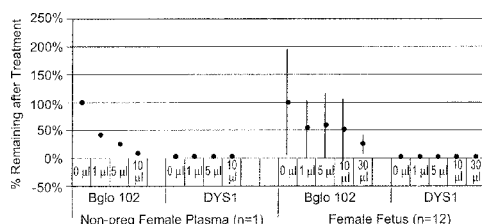


FIG. 1A

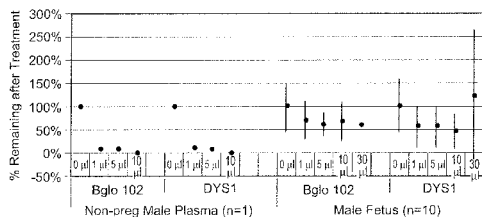


FIG. 1B

- (57) **Abstract:** The present invention provides methods for enriching fetal nucleic acid in a biological sample from a maternal host. Also provided are methods for detecting the presence or absence of markers in fetal, tumor, or neoplastic nucleic acid. The methods can include treating the biological sample with DNase and, optionally, performing whole genome amplification on the treated samples. The biological sample can be, for example, a blood sample.



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